

From glowbugs@devp214.theporch.com Fri Feb 7 12:39:46 1997
Return-Path: <glowbugs@devp214.theporch.com>
Received: from devp214.theporch.com (devp214.theporch.com [192.150.244.22])
by uro.theporch.com (8.8.5/AUX-3.1.1)
with ESMTP id MAA10790 for <shimshon@theporch.com>;
Fri, 7 Feb 1997 12:39:40 -0600 (CST)
From: glowbugs@devp214.theporch.com
Received: from devp214.theporch.com (localhost [127.0.0.1])
by devp214.theporch.com (8.8.4/SCO-5.0.2) with SMTP
id SAA12605; Fri, 7 Feb 1997 18:36:16 GMT
Date: Fri, 7 Feb 1997 18:36:16 GMT
Message-Id: <199702071836.SAA12605@devp214.theporch.com>
Errors-To: ws4s@infoave.net
Reply-To: glowbugs@devp214.theporch.com
Originator: glowbugs@devp214.theporch.com
Sender: glowbugs@devp214.theporch.com
Precedence: bulk
To: Multiple recipients of list <glowbugs@devp214.theporch.com>
Subject: GLOWBUGS digest 439
X-Listprocessor-Version: 6.0 -- ListProcessor by Anastasios Kotsikonas
X-Comment: Please send list server requests to listproc@theporch.com
Status: 0

GLOWBUGS Digest 439

Topics covered in this issue include:

- 1) Re: 70v Transformers - another question
by toyboat@freenet.edmonton.ab.ca
- 2) Easiest way to get black crinkle finish?
by Conard Murray <ws4s@InfoAve.Net>
- 3) Two Weeks to Green Key Night (& Day)
by "James H. Haynes" <haynes@cats.ucsc.edu>
- 4) Notification: message ignored
by Conard Murray <ws4s@InfoAve.Net>
- 5) FS: Radio Engineers' Handbook by Terman
by mjsilva@ix.netcom.com (michael silva)
- 6) Keying mechanicals and practicum revisited for glowbugs
by rdkeys@csemail.cropsci.ncsu.edu
- 7) Re: Tube base removal
by Roy Morgan <morgan@speckle.ncsl.nist.gov>

Date: Thu, 6 Feb 1997 12:37:39 -0700 (MST)
From: toyboat@freenet.edmonton.ab.ca
To: Jeff Duntemann <jeffd@coriolis.com>
Cc: Multiple recipients of list <glowbugs@devp214.theporch.com>

Subject: Re: 70v Transformers - another question

Message-ID: <Pine.A41.3.95.970206121212.21934A-100000@fn2.freenet.edmonton.ab.ca>

On Wed, 5 Feb 1997, Jeff Duntemann wrote:

> Regarding 70V line transformers, Dave asked:

>

> >Is there a glowbug application for them? I also have some 25v transformers
> >around as well.

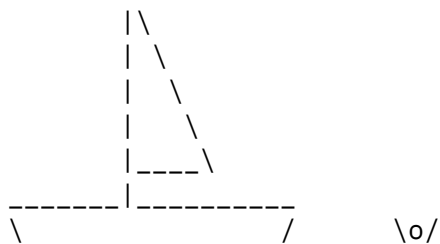
>

> That's almost certain, though it would be helpful to fully understand what
> those transformers actually are. I was looking for a transformer to match
> a 2200 ohm source to a 10 ohm load and wondering if I could jigger one of
> those 70V jobs to come close. Then I realized I wasn't entirely confident
> what the input impedance to one of those transformers is, though the
> consensus here seems to be that the 10W tap gives you 500 ohms.

I noticed in my collection of articles, one where the 70V line transformer (RS32-1031) was used as an output transformer for a very well researched and designed 4-stage, (2) 6GH8A regen receiver (QST, Sept. 1992, "A 40m Regenerative Receiver You Can Build"). The author uses it to match modern low-impedance phones to the output amplifier triode section. Output is from the plate through an audio coupling cap (.01uF) to the trafo primary (marked in output watts). The other primary lead is grounded. The secondary is marked in load ohms. He recommended trial and error experimentation with the multiple taps on both windings for best results, although for his application he used the 1.25 watt primary tap and 16 ohm secondary tap. This second audio stage is resistance coupled to the previous triode 1st audio in the circuit and runs from a 120-150 VDC supply.

Hope that this is helpful.

Shane Wilcox



~~~~~  
Shane <toyboat@freenet.edmonton.ab.ca>

~~~~~

Date: Thu, 06 Feb 1997 14:53:51 -0600
From: Conard Murray <ws4s@InfoAve.Net>
To: glowbugs@theporch.com
Subject: Easiest way to get black crinkle finish?
Message-ID: <2.2.32.19970206205351.006d3634@infoave.net>

> id sma027034; Thu Feb 6 14:31:08 1997
>From: mjsilva@ix.netcom.com (michael silva)
>Subject: Easiest way to get black crinkle finish?
>To: glowbugs@theporch.com
>
>Hi all,
>
>Is there an easy way to put a black crinkle finish on a panel? It just
>has to be good enough to lend the right period atmosphere. Thanks.
>
>73,
>Mike, KK6GM
>
>
.-----.
. Conard Murray WS4S Glowbugs listowner .
. 217 Dyer Avenue ws4s@infoave.net .
. Cookeville, TN 38501 615-526-4093 .
. <>< Wise men still seek Him <>< .
.-----.

Date: Thu, 6 Feb 1997 13:16:34 -0800
From: "James H. Haynes" <haynes@cats.ucsc.edu>
To: glowbugs@devp214.theporch.com
Subject: Two Weeks to Green Key Night (& Day)
Message-ID: <199702062116.NAA13120@hobbes.UCSC.EDU>

-line to try to foil the message rejector-

Get your teleprinters oiled! On Feb 20 we will be observing Green Key Night (& Day) as the anniversary of the beginning of FSK RTTY on the HF

ham bands, and in memory of the RTTY pioneers who worked so hard to make it happen. More details in the digital column in February QST.

Get on the air

Use a mechanical teleprinter if you can

Use 850 Hz shift if you can

Use vacuum tube gear if you can

In any case, wallow in nostalgia and have fun

Date: Thu, 06 Feb 1997 22:22:59 -0600
From: Conard Murray <ws4s@InfoAve.Net>
To: glowbugs@theporch.com
Subject: Notification: message ignored
Message-ID: <2.2.32.19970207042259.00b40730@infoave.net>

>Return-path: <glowbugs@devp214.theporch.com>
>Date: Fri, 07 Feb 1997 01:01:04 +0000 (GMT)
>From: glowbugs@devp214.theporch.com
>Subject: Notification: message ignored
>Sender: glowbugs@devp214.theporch.com
>To: ws4s@InfoAve.Net
>Errors-to: ws4s@InfoAve.Net
>Reply-to: glowbugs@devp214.theporch.com
>Originator: glowbugs@devp214.theporch.com
>X-Comment: Please send list server requests to listproc@theporch.com
>X-Listprocessor-version: 6.0 -- ListProcessor by Anastasios Kotsikonas
>
>This message has no body.
>
>The message is included below:

>-----
>>From jeffreyh@hawaii.edu Fri Feb 7 01:00:59 1997
>Return-Path: <jeffreyh@hawaii.edu>
>Received: from uro.theporch.com (uro.theporch.com [192.150.244.11])
> by devp214.theporch.com (8.8.4/SCO-5.0.2) with ESMTP
> id BAA11779 for <glowbugs@devp214.theporch.com>; Fri, 7 Feb 1997
01:00:52 GMT
>Received: from relay1.Hawaii.Edu ([128.171.3.53])
> by uro.theporch.com (8.8.5/AUX-3.1.1)
> with SMTP id SAA14233 for <glowbugs@theporch.com>;
> Thu, 6 Feb 1997 18:42:02 -0600 (CST)
>Received: from uhunix5.its.Hawaii.Edu ([128.171.44.55]) by
relay1.Hawaii.Edu with SMTP id <587131(1)>; Thu, 6 Feb 1997 14:37:36 -1000
>Received: from localhost by uhunix5.its.Hawaii.Edu with SMTP id
<188979(5)>; Thu, 6 Feb 1997 14:40:44 -1000
>Date: Thu, 6 Feb 1997 14:40:40 -1000

>From: Jeffrey Herman <jeffreyh@hawaii.edu>
>X-Sender: jeffreyh@uhunix5
>To: Glowbugs List <glowbugs@theporch.com>
>Subject: 160m bandplan (long)
>Message-ID: <Pine.GS0.3.93.970206142849.28828A-100000@uhunix5>
>MIME-Version: 1.0
>Content-Type: TEXT/PLAIN; charset=US-ASCII
>
>Some folks have asked me about the 160m Gentlemen's band agreement; since
>160 and glowbugging seem to go together, allow me to post what has
>appeared on the 160m email list in the past regarding this.
>73,
>Jeff KH2PZ

>-----
>

>From: Jari Jussila <Jari.Jussila@oh2bu.pp.fi>
>EUROPE

>C31 Andorra
>CT Portugal 1830-1850 kHz 600W
>CU Azores Is. 1830-1850 kHz 600W
>DK Germany 1815-1890 kHz 75W
>EA Spain 1830-1850 kHz 200W
>EA6 Balearic Is. 1830-1850 kHz 200W
>EI Ireland 1820-2000 kHz 10W
>ES Estonia 1820-1955 kHz 100W
>F France 1830-1850 kHz 250W Upd. 3.12.1996 by F6FGZ

>G England 1810-2000 kHz 400W
>GD Isle of Man 1810-2000 kHz 400W
>GI Northern Irel. 1810-2000 kHz 400W
>GJ Jersey I 1810-2000 kHz 400W
>GM Scotland 1810-2000 kHz 400W
>GU Guernsey 1810-2000 kHz 400W
>GW Wales 1810-2000 kHz 400W
>HA Hungary 1830-2000 kHz 10W
>HB9 Switzerland 1810-2000 kHz 1000W Upd. 30.11.96 by HB9AM0
>HB0 Liechtenstein 1810-2000 kHz 1000W Upd. 30.11.
>HV Vatican
>I Italy 1830-1850 kHz 1000W
>IS Sardinia 1830-1850 kHz 1000W
>W Swalbard 1810-1850 kHz 1000W Upd. 18.10.1996 by NRRL
>JX Jan Mayen 1810-1850 kHz 1000W Upd. 18.10.1996 by NRRL
>LA Norway 1810-2000 kHz 1000W Upd. 18.10.1996 by NRRL
>LX Luxembourg 1810-1850 kHz 100W
>LZ Bulgaria 1810-1850 kHz 1000W
>OE Austria 1810-1950 kHz 200W
>OH Finland 1810-1850 kHz 600W

> 1915-1955 kHz
600W
>OH0 Aland Is. 1810-1850 kHz 600W

> 1915-1955 kHz
600W
>OH0M Market Reef 1810-1850 kHz 600W

> 1915-1955 kHz
600W
>OK Czech. Rep. 1810-2000 kHz 750W
>OM Slovak Rep. 1810-2000 kHz 750W
>ON Belgium 1830-1850 kHz 40W During major contests possibility to 2 kW
>
> out. Upd. 30.11.96 by ON4UN
>OZ Denmark 1810-1850 kHz 1000W Upd. 29.10.1996 by EDR
> 1850-1900 kHz 10W
>Upd. 1.12.1996 by OZ2Q
> 1930-2000 kHz
10W Upd.
>29.10.1996 by EDR
>OY Faeroe 1810-1850 kHz 1000W Upd. 29.10.1996 by EDR
> 1850-1900 kHz 10W
>Upd. 1.12.1996 by OZ2Q
> 1930-2000 kHz 10W Upd. 29.10.1996 by EDR
>PA Netherlands 1810-1850 kHz 400W
>SM Sweden 1810-1850 kHz 1000W Upd. 21.10.1996 by SSA
>SP Poland 1810-1850 kHz 750W Upd. 30.11.1996
>SV Greece 1830-1850 kHz 300W
>T77 San Marino
>TA Turkey 1810-1850 kHz 30W
>TF Iceland 1820-1850 kHz 500W
>TK Corsica 1810-1850 kHz 250W Upd. 3.12.1996 by F6FGZ
>YL Latvia 1810-1930 kHz 500W
>YO Romania 1810-1850 kHz 400W
>3A Monaco
>9H Malta 1810-2000 kHz 32W
>
> ASIA

>4X Israel 1810-2000 kHz 1500W
>
> PACIFIC
>ZL New Zealand 1810-1950 kHz 400W
>ZL7 Chatham Is. 1810-1950 kHz 400W
>ZL8 Kermadec I. 1810-1950 kHz 400W
>ZL9 Auckland Is 1810-1950 kHz 400W
>

> AFRICA

>CT3 Madeira I. 1830-1850 kHz 600W

>EA6 Canary Is. 1830-1850 kHz 200W

>EA9 Ceuta/Melilla 1830-1850 kHz 200W

>

> ANTARCTICA

>3Y Bouvet 1810-2000 kHz 1000W Upd. 18.10.1996 by NRRL

>3Y Peter 1 Is. 1810-2000 kHz 1000W Upd. 18.10.1996 by NRRL

>

>

>Jari Jussila OH2BU/OH7RF How to reach me? Try:

>Internet: Jari.Jussila@oh2bu.pp.fi (home) or Jari.Jussila@mtv3.fi

(office)

>

>From: dj8wl@uugate.wa7slg.ampr.org

>I.A.R.U. REGION 1 CONFERENCE 1996

>29 SEP - 6 OCT, Dan Panorama, Tel Aviv, Israel

>Committee C.4 DOC/96/TAI/C4.9

 Revision 1

>

>

>

> IARU REGION 1 HF BAND PLAN (part 1 of 2)

> =====

>

> 1.810 - 1.838 MHz cw only

> 1.838 - 1.840 digimode except packet, cw

> 1.840 - 1.842 digimode except packet, phone, cw

> 1.842 - 2.000 phone, cw

>

>1.8 MHz band:

>Those Societies which have an existing SSB allocation below 1840 kHz may

>continue to use it. However, they are requested to take all necessary steps

>with their licensing Administrations to adjust the phone allocations in

>accordance with the Region 1 Band Plan.

>

>From: Craig Clark <nx1g@top.monad.net>

>Subject: TopBand: 160 band plan ARRL 1982

>>From Jan 1982 QST

>1800-1825 cw only

>1825-1830 dx window (cw only)

>1830-1850 mixed mode (I seem to remember intercontinental qso's)

>1850-1855 ssb dx window

>1855-2000 ssb

> send me e-mail and I'll put you on our mailing list

> Radio Bookstore

> Books for Amateur Radio, SWL and CB Radio Operators

>

>

>From: "dennis g. peterson" <dennisgp@mut1.muscanet.com>
>>Hi Jeff; Thought you might be interested in some of the findings I found
>today and over the past several years of operating on topband. I am sending
>you a synopsis of the findings for the cw portion of the band according to
>the Frequency Allocations from my TOPBAND FREQUENCY ALLOCATIONS TABLES.
>These are factual and not just something trumped up for viewing. My
>suggestion for a band plan in accordance with the supposedly already
>existing plan; which I've never seen anything published on it although I do
>remember a suggested "GENTLEMANS'S AGREEMENT" We certainly don't have a
>gentlemans agreement on the other bands.
>1800-1825 cw only
>1825-1830 dx window (cw only)
>1830-1850 mixed mode (intercontinental qso's)
>1850-1855 ssb/dx window
>1855-2000 ssb
>We both know that cw and ssb on the same frequency or within a few khz does
>not mix
>"Where they came up with the idea of 1830-1850 mixed mode , I don't know"
>Is there a mixed mode anywhere else in the amateur spectrum, ONLY IN AREAS
>DESIGNATED FOR VOICE, CW, SSTV, FAX ETC. Otherwise it states CW Only
>specifically.
>Well, here's my suggestion for a band plan which could work for everyone CW
>Wise anyway. It will make some angry and upset, but they should get over it.
>1.800-1.810 sstv, fax, rtty and other digital modes
>1.990-2.000 -----same as above-----
>
>1.810-1.870 CW ONLY
>
>1.870-2.000 VOICE, SSTV, FAX, RTTY and OTHER DIGITAL MODES
>
>1.907.5-1.912.5 INTERNATIONAL DX WINDOW FOR JAPAN (JA TRANSMIT) ALL OTHERS
>LISTEN ONLY
>
> The following counts were taken from my Topband Frequency Allocations
Tables.
>~~~~~
>1800-2000 = 89 countries with full band allocational coverage
>1810-2000 = 32
>1800-1825 = 2 [(HL) & (VP9)]
>1810-1830 = 12
>1800-1850 = 8
>1802-1850 = 1 (3Y)
>1810-1850 = 30
>1820-1850 = 6
>1815-1835 = 1 (DL)
>1830-1850 = 48
>1803-1857 = 6
>1800-1866 = 10

>1820-1860 = 3
 >1830-1860 = 19
 >1907.5-1912.5 = 3 (JA) (JD1)(JD1)
 >
 >From: SUGIYAMA Minekazu <sugiyama@rh.u-tokai.ac.jp>
 >The "Considerate Operator's Frequency Guide," QST page 104
 >for Jan 96 lists the following:
 >1.800-1.830 CW, data and other narrowband modes
 > 1.810 QRP CW calling frequency
 >1.830-1.840 CW, data and other narrowband modes,
 > intercontinental QSOs only
 >1.840-1.850 CW; SSB, SSTV and other wideband modes,
 > intercontinental QSOs only
 >1.850-2.000 CW; phone, SSTV and other wideband modes
 > 1.910 QRP SSB calling frequency
 >
 >I once commented on 1.910kHz SSB calling frequency on
 >this reflector in disgust.
 >de Mine JA2NQG AH0F KC6CW VK9LS V63WW etc
 >
 >From: George Guerin <George.Guerin@kellogg.com>
 > Part of the problem is the ARRL. Unless the QRP calling frequency is
 > moved up to around 1920, there will always be people thinking they are
 > properly using low power SSB on/near 1910. The only good thing about
 > the JA window was the FW DXpedition listening 1909-1911 for US/VE DX
 > which clued in some of the SSBers to the DX activity around those
 > frequencies before local sunrise.
 > Years ago someone else actually published a data communications
 > recommendation for 1825-1830. Amtor on 1827 didn't thrill the midwest
 > DXers. Fortunately, one of the Chicagoland DXers had Amtor capability
 > and was able to explain the error in the guideline to the two or three
 > hams and the problem went away. We were all lucky the guideline was
 > not repeated, and the digital hams were able to move up or down.
 > One other thought: Don't bother the morning SSB around 1819. Those
 > fellows have been there for years and have relocated voluntarily after
 > a very heated winter a year or two ago. Having them on 1824 was bad
 > enough. When the JA's started sending QSOX 1824 instead of QSOX 1808 or
 > 1810, there were some very heated moments and plenty of SSB ragchew
 > activity between 1820 and 1830 during morning sunrise DX openings!
 > In summary, everyone can work around the problems, if we will just
 > think ahead and tune the band before we jump in somewhere.
 > Now, if the band would only open up next weekend, we might get a
 > couple of new ones.
 >
 >From: "dennis g. peterson" <dennisgp@mut1.muscanet.com>
 >Hi gang; I don't know if or whether this information will help sooth the
 >irritations
 >and frustrations for a better band plan for 160 meters but at least you will

>all be educated with the knowledge of how many countries actually can
>operate within a divided guideline of say the first 65-75 KHz of 160 meters.
>As some have suggested earlier on the reflector, there are those that claim
>the band has been as it has been for years WHY CHANGE THINGS NOW?" Well,
>we all know that the two modes do not mix when it comes to sharing
>frequencies. Almost all of the time a ssb signal is going to win over a
>weak and even in some cases a relatively strong cw signal. My question is
>this "For you ssb operators who have made a choice not to continue your cw
>expertise and go with ssb ONLY; Why do you feel it necessary to DESTROY the
>likes of another ham brother who has chosen cw as his first mode choice?
>Myself, I'm not very good at cw; however, I do enjoy a GOOD CHASE AND RELISH
>THE IDEA OF CHASING A GOOD DX STATION whenever the opportunity permits and
>presents itself. I've been chasing 4X4NJ for almost 16 years and ZS4 for
>about the same. The other evening I had my first taste of a ZS4TX but
>couldn't break the eastern coastal wall to be heard. That doesn't mean that
>I'm going to qrm those who can, it only means I've got to improve upon my
>antenna system so that I might be heard next time; OR it just might be that
>NEXT TIME propagation will FAVOR ME instead of YOU.

>

>I am inclosing with this message a text file showing the relative strength
>of countries who share the same LOW END OF FREQUENCY ALLOCATIONS AS DO THE
>USA ETC.,.

>Now if we were to all approach the IARU with a band plan suggesting the
>lower say "65-75 KHz of 160 for CW ONLY there might be a chance. I know,
>"WE'VE TRIED THIS BEFORE AND IT DIDN'T WORK", WELL, If at first you don't
>succeed TRY TRY AGAIN. Maybe4 this is the Right Time and the Best
>Opportunity for all CW DX chasers to PUSH Forward Rather than TAKEN TWO
>STEPS BACKWARDS WHEN THE GOING GETS TOUGH. I hope you find this info os use
>and maybe advantageous. 73s and cu all on 160 de N7CKDennis/0

> The following synopsis of the 160 meter band was observed with the
following.

> The majority of the countries within the ARRL/IARU all utilize a
current span

> of 70 KHZ for CW operation all of which is in the lower segment of the
band.

> The balance of the band is utilized for ssb operations and other modes
with

> CW and SSB taking precedence over all others.

>

> The following counts were taken from my Topband Frequency Allocations
Tables.

>~~~~~

>1800-2000 = 89 countries with full band allocational coverage

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>1803-1857 = 6
>1800-1866 = 10
>1820-1860 = 3
>1830-1860 = 19
>1907.5-1912.5 = 3 (JA) (JD1)(JD1)
>
>
>
.-.-.-.-.-
. Conard Murray WS4S Glowbugs listowner .
. 217 Dyer Avenue ws4s@infoave.net .
. Cookeville, TN 38501 615-526-4093 .
. <>< Wise men still seek Him <>< .
.-.-.-.-.-

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Date: Thu, 6 Feb 1997 20:05:28 -0800
From: mjsilva@ix.netcom.com (michael silva)
To: glowbugs@devp214.theporch.com
Subject: FS: Radio Engineers' Handbook by Terman
Message-ID: <199702070405.UAA15709@dfw-ix3.ix.netcom.com>

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Hi all,

I tried posting this last night but it seems to have been swallowed up, so I'll try again. Appologies if it did already show up...

I've just gotten a beautiful "new" copy of Terman's Handbook and I'm looking to see if anybody is interested in my old one. The one for sale is in good shape -except- it has water stains on the inside top and bottom of most pages (about a square inch in area), but it's completely readable, no stuck pages etc. Anybody want it for what I paid, \$15 (plus say two bucks shipping)? For those who don't know about this book, it was written in 1943, has 1000+ pages and is probably the book I would choose if I could only have one vacuum tube book on the proverbial desert island (along with a box of tubes and a few trees for the antennas ;).

Hey, there's an idea for a thread...

73,
Mike, KK6GM

Date: Fri, 7 Feb 1997 12:13:33 -0500 (EST)
From: rdkeys@csemail.cropsci.ncsu.edu
To: glowbugs@theporch.com
Cc: rdkeys@csemail.cropsci.ncsu.edu ()
Subject: Keying mechanicals and practicum revisited for glowbugs
Message-ID: <9702071713.AA146622@csemail.cropsci.ncsu.edu>

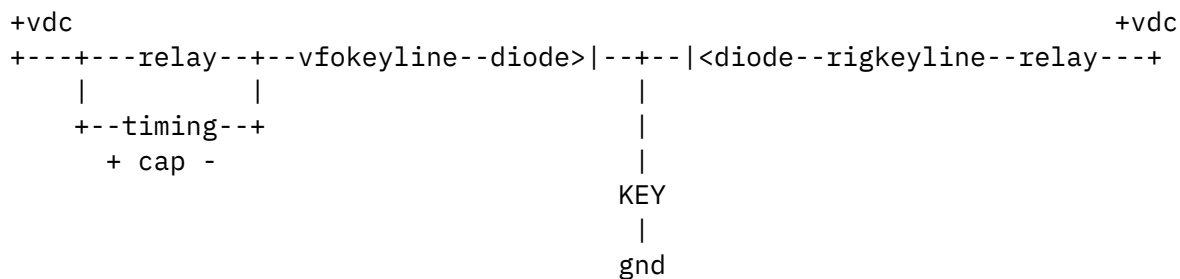
Whilst finishing the arcusfivus vfo to drive a fine glowbugge rig to speed in the variable oscillatory mode, I thought I would pass along a few thoughts on keying glowbugs with the arcusfivus vfo's.

1. Although QSK is possible with a glowbug, it is usually done with two antennas for convenience or occasionally a tr switch. Most of the time 'semi-qsk' with a delay circuit and an antenna relay is reasonable to shoot for.
2. Using the average rockbound glowbug rig with a vfo can be a bit tricky, since they need to key together such that the vfo makes first and then the transmitter keys and then the transmitter unkeys and then the vfo unkeys. So for stability the oscillator needs to come on when the antenna changeover relay fires, and stay with it timingwise. Also, the keying on the glowbug can be positive keying or negative keying of widely varying voltages. (Note that if a glowbug is keying a line of greater than about 50 volts you really should be keying it with a relay.)
3. So, for convenience, assuming you are keying your glowbug with a relay, it can be sequence keyed with the oscillator in semi-qsk mode, fairly simply, as follows....
 - a) Take a relay for keying of any handy voltage and put a diode in the low side of the relay key line such that it protects the relay from reverse currents. Usually the cathode goes to ground in a positive keying relay circuit. A 12 or 24 volt relay is fine.
 - b) Take a similar relay and diode and use that to key the arcusfivus vfo (if you have a junker arcusfivus like mine that had to be rebuilt from scratch). A 12 or 24 volt relay is fine and can be run from the dc filament line quite effectively.
 - c) Connect together the key lines from the vfo and the rig to the key and test that they key together. If they do, all is fine. If they don't check the polarity of the diodes --- they should

be the same with cathodes to ground for a positive keying line. Note that the diodes come together at the key to ground end of the line.

- d) Now for the fun part of timing the the semi-qsq delay in the vfo half of the circuit. Take a capacitor rated at about two times the dc supply voltage of the relays (50 volts is fine and a value of about 3000 to 5000uf is a good starting value) and connect it in the vfo line between the high side of the relay and the low side of the relay taking care to make sure the polarity of the capacitor matches that of the power source for the relay.

SORTOF SCHEMATIC THEREFOR:



Bingo! You now have a fine semi-qsq circuit that will key the oscillator and the rig together, but, since the oscillator vfo has the capacitor across its relay, it will hold in for the RC time constant of the relay resistance and the capacitance. You may have to adjust the value of the capacitance to suit. On small relays it may be as little as 1000ufd, but on larger relays it may be as much as 10000 ufd. That will give around a 3 second holdin on the vfo relay. If the vfo keying relay has a double contact set, you can use the second contact set to key the antenna changeover relay along with the vfo for perfect semi-qsq glowbugging! In this latter case, bend the antenna changeover relay contact to make slightly ahead of the vfo keying relay contact so the the antenna circuit is completed before the rig is actually keyed.

If you don't use a relay to key the glowbug rig (or other rig) and that rig has a negative keying line, then you MUST reverse the vfo relay power source, timing capacitor, and diode polarities. I do this on the AN/SRT-14 which has a -30v keying line. The only thing that it does is make the arcusfivus vfo filament supply be reversed so that it is negative grounded on the filament battery.

If you are keying a high voltage grid block line (like the older ham rigs that sometimes key a couple of hundred volts of grid block), you must make SURE you have a high voltage diode (like a 1 amp 1000v diode)

or it will blow the diode and possibly the relay winding. Other than that, it is a good use for the old junk box diodes that never seem to get used or are mostly unmarked.

I am sure lots of folks have done this sort of thing before, but I have used this to key everything from my novice days up to the present, and it works for me. Size yer relays for the task to be keyed and tally ho!

73/ZUT DE NA4G/Bob UP

Date: Fri, 07 Feb 1997 11:43:00 -0500
From: Roy Morgan <morgan@speckle.ncsl.nist.gov>
To: glowbugs@theporch.com
Subject: Re: Tube base removal
Message-ID: <3.0.32.19970207114259.006bdacc@speckle.ncsl.nist.gov>

At 05:00 PM 2/6/97 GMT, you wrote:

>If it's a "dud" tube, and I just want the base, I use the old "hammer
>and paper bag" routine. The bag retains the broken glass, and other
>"nasties" from the broken tube.

NOTE: Leave your dud 866's, 816,s and 83 rectifiers INTACT.

These and some others heve MERCURY in them, even if it doesn't look like it, in the 83 especially.

-- Roy Morgan/Building 820, Room 562/Gaithersburg MD 20899
(National Institute of Standards and Technology)
301-975-3254 Fax: 301-948-6213 morgan@speckle.ncsl.nist.gov --

End of GLOWBUGS Digest 439
